

REMARKS

Claims 1-36 were pending. Claims 11, 16, 24, 31, 35, and 36 have been amended. Accordingly, claims 1-36 remain pending in the application after entry of the present amendment.

Claim Objections

Claims 15, 24, 31, and 35 were objected to due to informalities. It is believed claim 16 was intended rather than claim 15. The informalities specified by the Examiner have been found and corrected via amendments to claims 16, 24, 31, and 35.

35 U.S.C. § 112 Rejections

In the present Office Action, claims 11, 12, and 35 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claims the subject matter which applicant regards as the invention. Applicant has amended claim 11 to correct an error in dependency and amended claim 35 to remove the dependency on claim 16 and intervening claim 21. Accordingly, these claim rejections are believed to be overcome.

35 U.S.C. § 101 Rejections

Claim 36 stands rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. While Applicant does not necessarily agree with this rejection, Applicant has amended claim 36 in order to speed allowance of the present application. The pending claims are believed to meet the requirements of 35 U.S.C. § 101.

35 U.S.C. § 102(e) and § 103(a) Rejections

In the present Office Action, claims 1-7, 16-22, 30, and 33-36 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,836,785 (hereinafter "Bakshi"). In addition, claims 8-15 and 23-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bakshi in view of U.S. Patent 5,878,224 (hereinafter "Smith"). In addition, claims 31 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bakshi and "Getting Started with the Java Dynamic Management Kit 4.2." Applicant has reviewed the cited references and notes that all of the above rejections depend on the teachings of Bakshi. Applicant submits each of the pending claims recite features neither disclosed nor suggested by the combination of cited art. Accordingly, Applicant traverses the above rejections and requests reconsideration in view of the following comments.

Claim 1 recites

"A method of managing overload in a server system, having a service operating in response to input requests, and a server operation parameter related to the operation of said service, the method comprising the steps of :

- a. monitoring successive values of the server operation parameter as a function of time,
 - b. from such values,
 - b1. evaluating a first condition, which involves whether the server operation parameter passes a first threshold value in a first direction, and
 - b2. evaluating a second condition, which involves whether the server operation parameter passes a second threshold value in a second direction, with the second direction being opposite to the first direction, and extending from the first threshold value to the second threshold value,
 - c. starting rejection of input requests, upon verification of a third condition, related to the verification of at least one of said first and second conditions, and
 - d. terminating rejection of input requests upon verification of a fourth condition, related to the verification of said second condition."
- (Emphasis added).

It is noted that evaluating the second condition involves whether the server operation parameter passes a second threshold value in a second direction, with the second direction being opposite to the first direction. On page 4 of the present Office

Action, the Examiner suggests Bakshi teaches the highlighted features at col. 5, lines 3-29 and fig. 4, “process steps.” However, Bakshi merely discloses a method for throttling server requests that uses two threshold values, one for overload conditions and another for non-overload conditions. More particularly, Bakshi discloses:

“FIG. 4 is a flowchart outlining an exemplary process of the throttling system in accordance with the present invention. The process begins in step 400 and proceeds to step 410. In step 410, the server 116 can wait for an incoming request, and once received, the process continues to step 420. In step 420 the process determines whether a server is in an overloaded state. If the server is overloaded, the process proceeds to step 440; otherwise if the server is not overloaded, the process proceeds to step 430.

In step 430, the process determines whether a buffer is 100% full. If the buffer is 100% full, the process proceeds to step 460; otherwise, the process proceeds to step 450 if the buffer is not 100% full. In step 450, the incoming request is stored in the buffer and the process returns to step 410. In step 460, the incoming request is discarded and the process then returns to step 410.

If the server is overloaded in step 420, then at step 440 the process determines whether the buffer is at an acceptance limit. As described above, the acceptance limit can be 25% of the capacity of the buffer. If the buffer is filled to the acceptance limit, then the process proceeds to step 480; otherwise, the process proceeds to step 470. In step 470, the incoming request is stored in the buffer and the process returns to step 410. Alternatively, if the buffer is at an acceptance limit, the incoming request is discarded in step 480 and the process returns to step 410. “ (Bakshi, col. 5, lines 3-29).

As may be seen from the above, Bakshi’s throttling process determines if a buffer has reached a full (100%) state if a server is not overloaded and determines if the buffer has reached a lower (e.g., 25%) limit if the server is overloaded. In neither case does Bakshi mention detecting that the buffer has passed the threshold in a particular direction. Instead, Bakshi merely determines that the buffer usage has a value either above or below the threshold. The Examiner suggests Bakshi teaches “threshold passing” at col. 4, lines 45-59. However, the cited portion of Bakshi merely discloses detecting an increasing processing rate. Nowhere does Bakshi disclose or suggest that a first threshold is passed

in a first direction and a second threshold is passed in a second direction, opposite to the first direction. Accordingly, Applicant finds no teaching or suggestion in Bakshi, or in the other cited art, taken singly or in combination, of “b1. evaluating a first condition, which involves whether the server operation parameter passes a first threshold value in a first direction, and b2. evaluating a second condition, which involves whether the server operation parameter passes a second threshold value in a second direction, with the second direction being opposite to the first direction, and extending from the first threshold value to the second threshold value,” as is recited in claim 1. For at least these reasons, claim 1 is patentably distinguishable from the cited art. As claims 16, 35, and 36 include features similar to those discussed above, each of claims 16, 35, and 36 are patentably distinguishable for at least the above reasons as well.

In addition to the above, the dependent claims recite further features not found in the cited art. For example, claim 3 recites:

“The method of claim 1, wherein the third condition of step c. comprises the fact the second condition has not been verified during a grace period after the first condition has been verified, and the fourth condition of step d. comprises the fact the second condition has been verified after the third condition has been verified.”

It is noted that the fourth condition comprises two parts, the fact the second condition has been verified and that the verification happens after the third condition has been verified. On page 5 of the present Office Action, the Examiner suggests Bakshi teaches the highlighted features at col. 5, lines 3-29 and fig. 4, “process steps, where the rejection of input requests is terminated.” However, fig. 4 of Bakshi merely discloses two parallel paths with no suggestion that the order of execution of the paths is in any way related to a fourth condition. Accordingly, Applicant finds no teaching or suggestion in Bakshi, or in the other cited art, that “the third condition of step c. comprises the fact the second condition has not been verified during a grace period after the first condition has been verified, and the fourth condition of step d. comprises the fact the second condition has been verified after the third condition has been verified,” as is recited in claim 3. For at least these additional reasons, claim 3 is patentably

distinguishable from the cited art. As claim 18 includes features similar to those discussed above, claim 18 is patentably distinguishable for at least the above reasons as well.

Also, claim 4 recites “The method of claim 1, wherein step b1. is performed at a first rate, and step b2. is performed at a second rate, not lower than the first rate.” Nowhere in the cited art is there a disclosure of a comparison of the rates at which a first condition and a second condition are evaluated to determine that one rate is lower than the other. Nor are the conditions of claim 5 taught: “wherein step b2. is performed within a time period starting upon verifying the first condition at step b1., and terminating upon verifying the fourth condition at step d.”

In addition, claims 12, 14, and 15 recite features wholly absent from the cited art. For example, claim 12 recites, “The method of claim 11, wherein the fifth condition further comprises the fact that the server requests queue length remains substantially constant.” Smith col. 6, line 40 to col. 7, line 26 is cited as teaching these features. However, Applicant finds no mention anywhere in Smith of such features. Rather, the cited portion of Smith merely discloses a method of estimating a maximum number of messages that a server should receive in a given measurement interval. Claim 14 recites “The method of claim 9, wherein steps a1. and a2. are performed at a third rate.” In addition, claim 15 recites, “The method of claim 14, wherein the third rate is not lower than the first rate.” Smith col. 8, lines 13-34 is cited as teaching these features. However, Applicant finds no mention anywhere in Smith of performing measurements at different rates. Instead, Smith merely discloses measurements that are performed over a “measurement interval.” Choosing a particular duration for a measurement interval would result in a corresponding rate. However, Smith is silent as to any particular choice of a measurement interval and does not disclose plural measurement intervals of different durations.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-78600/RDR.

Respectfully submitted,

/ Rory D. Rankin /

Rory D. Rankin

Reg. No. 47,884

ATTORNEY FOR APPLICANT(S)

Meyertons, Hood, Kivlin,
Kowert, & Goetzel, P.C.
P.O. Box 398
Austin, TX 78767-0398
Phone: (512) 853-8800

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